**Clinical Skills Outlined Review**

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*Disclaimer: This is meant to be used as a reference only and not as an absolute guide to successfully completing any required clinical skills on exams or out in clinical practice. The purpose is to just allow some brief review of what techniques and/or special tests are available under each body/organ system.*

**Musculoskeletal**

*\*\*\*Note: These are all special tests that are organized by body region. Specifics are not listed for each special test, so review might be necessary in terms on how to exactly perform the special test.\*\*\**

*Cervical Spine*

* Spurling’s Test
  + *Positive Sign*: radiating pain
  + *Indication*: nerve root impingement

<https://www.youtube.com/watch?v=VYENa1Dre10>

* Compression and Distraction Tests
  + *Positive Sign*: reproduction of pain and relief of pain
  + *Indication*: issue with the cervical spine that warrants further investigation

<https://www.youtube.com/watch?v=TnoJySUENAk>

*Lumbar Spine*

* Straight Leg Raising Test
  + *Positive Sign*: radiating pain below the knee
  + *Indication*: nerve root irritation or lumbar disc herniation

<https://www.youtube.com/watch?v=aL85pm7J6Io>

*Shoulder*

* Yergason Test
  + *Positive Sign*: tendon pops out of the groove or if pain occurs upon palpation
  + *Indication*: instability of biceps tendon or tendonitis

<https://www.youtube.com/watch?v=uDrHy4Ob4yI>

* Drop Arm Test
  + *Positive Sign*: cannot hold the arm and it drops
  + *Indication*: rotator cuff injury, especially the supraspinatus muscle

<https://www.youtube.com/watch?v=Jv3OzKNAyHQ>

* Neer Test
  + *Positive Sign*: pain
  + *Indication*: rotator cuff inflammation or tear

<https://www.youtube.com/watch?v=Gk9tOHSvW1A>

* Hawkins Test
  + *Positive Sign*: pain
  + *Indication*: rotator cuff tear or impingement

<https://www.youtube.com/watch?v=nTXvtEx9t2w>

<https://www.youtube.com/watch?v=8MyJwPvIvBg>

* Empty Can Test
  + *Positive Sign*: pain
  + *Indication*: rotator cuff injury or supraspinatus tendonitis

<https://www.youtube.com/watch?v=lucHrTMP0QI>

* Apprehension Test
  + *Positive Sign*: patient exhibits fear and apprehension during test
  + *Indication*: anterior shoulder subluxation

<https://www.youtube.com/watch?v=HvoZ92ZFn9c>

* Jerk Test
  + *Positive Sign*: subluxation or dislocation occurs
  + *Indication*: posterior shoulder subluxation

<https://www.youtube.com/watch?v=pQq95HQboU4>

* Sulcus Test
  + *Positive Sign*: widening of the sulcus between the humerus and acromion
  + *Indication*: inferior shoulder subluxation

<https://www.youtube.com/watch?v=sIhWzU1WtFs>

*Elbow*

* Ligamentous Stability Test
  + *Positive Sign*: excessive gapping with valgus or varus stress
  + *Indication*: instability of the medial collateral ligament or the lateral collateral ligament of the elbow

<https://www.youtube.com/watch?v=qOQKB-4hkMY>

* Tinel’s Sign
  + *Positive Sign*: tingling sensation down the forearm to the ulnar distribution of the hand
  + *Indication*: ulnar nerve entrapment

<https://www.youtube.com/watch?v=Tk-w18_EjVk>

* Tennis Elbow Test (Cozen’s Sign)
  + *Positive Sign*: severe pain at the lateral epicondyle
  + *Indication*: lateral epicondylitis

<https://www.youtube.com/watch?v=ZmZVofLqZS4>

* Golfer’s Elbow Test
  + *Positive Sign*: severe pain at the medial epicondyle
  + *Indication*: medial epicondylitis

*Wrist and Hand*

* Allen Test
  + *Positive Sign*: release of ulnar artery does not return hand back to expected color (documented as a negative Allen test)
  + *Indication*: ulnar artery insufficiency (**do not perform ABG on that radial artery**)

<https://www.youtube.com/watch?v=hLov_jwTBkg>

* Tinel’s Sign
  + *Positive Sign*: tingling sensation in the median distribution of the hand
  + *Indication*: median nerve entrapment

<https://www.youtube.com/watch?v=SuCVcsNUeJA>

* Phalen’s Test
  + *Positive Sign*: tingling sensation in the median distribution of the hand
  + *Indication*: median nerve entrapment

<https://www.youtube.com/watch?v=iPRG43m1_Vc>

*Hip*

* Trendelenburg Test
  + *Positive Sign*: iliac crest drops on the side of the lifted leg
  + *Indication*: hip abductors on the weight bearing side are weak

<https://www.youtube.com/watch?v=l07aYtKma_U>

* Thomas Test
  + *Positive Sign*: normal flexion of one hip and approximately 15 degrees of flexion contracture of the other hip
  + *Indication*: tight iliopsoas muscle

<https://www.youtube.com/watch?v=FNYm7zxjGMQ>

<https://www.youtube.com/watch?v=rTPdKOqg0G8>

* FABER Test (Patrick Test)
  + *Positive Sign*: pain in the groin, anterior thigh, or trochanteric region or pain in the ipsilateral SI joint
  + *Indication*: hip joint pathology or SI joint disorder

<https://www.youtube.com/watch?v=ZRtgAcRDL1Y>

*Knee*

* Ligamentous Stability Test
  + *Positive Sign*: abnormal lateral movement or abnormal medial movement
  + *Indication*: instability of the medial collateral ligament or lateral collateral ligament of the knee

<https://www.youtube.com/watch?v=Xgn35yfqCdg>

* Anterior Drawer Test
  + *Positive Sign*: abnormal forward mobility of 2 cm or more
  + *Indication*: anterior cruciate ligament tear

<https://www.youtube.com/watch?v=fmsUE7gdkLQ>

* Posterior Drawer Test
  + *Positive Sign*: abnormal backward mobility of 2 cm or more
  + *Indication*: posterior cruciate ligament tear

<https://www.youtube.com/watch?v=DC0sQbtwF90>

* Lachman’s Test
  + *Positive Sign*: increased laxity in the anterior cruciate ligament
  + *Indication*: anterior cruciate ligament tear

<https://www.youtube.com/watch?v=F7-9eofB80U>

* Ballottement
  + *Positive Sign*: patella rebounds when pushed down
  + *Indication*: excess fluid or an effusion in the knee
* McMurray Test
  + *Positive Sign*: a palpable or audible click within the joint
  + *Indication*: medial or lateral meniscus tear

<https://www.youtube.com/watch?v=bJWpS_05QSA>

* Apley Compression Test
  + *Positive Sign*: pain in the knee with compression
  + *Indication*: medial and/or lateral meniscus injury

<https://www.youtube.com/watch?v=k2ZoJ6oUyNo>

* Apley Distraction Test
  + *Positive Sign*: pain in the knee with distraction
  + *Indication*: medial and/or lateral collateral ligament of the knee injury

<https://www.youtube.com/watch?v=k2ZoJ6oUyNo>

*Ankle and Foot*

* Thompson-Doherty Squeeze Test
  + *Positive Sign*: no plantarflexion occurs when the calf is squeezed
  + *Indication*: Achilles tendon rupture

<https://www.youtube.com/watch?v=71GG5-CT4GU>

* Ankle Drawer Sign
  + *Positive Sign*: obvious extreme forward displacement of the entire foot on the tibia
  + *Indication*: anterior talofibular ligament injury

<https://www.youtube.com/watch?v=kfMgPb4SXjs>

**Cardiovascular**

*Murmurs*

*\*\*\*Note: This is not an exhaustive list for how to enhance murmurs, but the following ones are listed for a quick review. Also, if grading of murmurs is not recalled a quick review of how to might not be a bad idea.\*\*\**

Systolic Murmurs

* Aortic Stenosis: no maneuver distinguishes this murmur, the diagnosis can be made by exclusion, clinical presentation, and physical exam
* Mitral Regurgitation: hand grip enhances murmur

Diastolic Murmurs

* Aortic Regurgitation: accentuated by having the patient sit and lean forward

<https://www.youtube.com/watch?v=aMRYU5hY03Y>

* Mitral Stenosis: accentuated by having the patient lie in left lateral decubitus

<https://www.youtube.com/watch?v=g60XNtXx-G0>

*Special Tests*

* Capillary Refill
  + *Positive Sign*: capillary refill time of longer than 2 seconds
  + *Indication*: dehydration or peripheral perfusion issue
* Pitting Edema
  + *Positive Sign*: depression that does not rapidly refill and resume its original contour
  + *Indication*: edema, increased venous hydrostatic pressure, or heart failure

*\*\*\*Note: If grading of pitting edema is not recalled a quick review of how to might not be a bad idea.\*\*\**

* Homan’s Sign
  + *Positive Sign*: pain in the calf with dorsiflexion of the foot
  + *Indication*: DVT

<https://www.youtube.com/watch?v=5-LCDB_PPYM>

* Bancroft/Moses’ Sign
  + *Positive Sign*: pain in the calf with anteroposterior compression
  + *Indication*: DVT

<https://www.youtube.com/watch?v=b1oaLDj1u4Y>

**HENNT**

*Basic Exam Techniques*

* Tracheal Alignment

<https://www.youtube.com/watch?v=YMufMulGnFE>

* Otoscopic Exam

<https://www.youtube.com/watch?v=0BJ2EP3TacU>

* Internal Nasal Exam

<https://www.youtube.com/watch?v=L2rwY1Mud9Y>

* Sinus Palpation/Percussion

<https://www.youtube.com/watch?v=NO3H7DlTpS8>

* Lymph Node Palpation

<https://www.youtube.com/watch?v=t54mngOVKtM>

* + Occipital
  + Pre-Auricular
  + Posterior Auricular
  + Submandibular
  + Sublingual
  + Submental
  + Anterior Cervical
  + Posterior Cervical
  + Supraclavicular
* Thyroid Exam
  + Screening Exam: palpate both lobes of the thyroid at once during a single swallow to check briefly for thyromegaly, nodules, or masses
  + Formal Exam: *\*\*\*Note: If you cannot recall how to conduct this exam, it would be a good idea to review both the anterior approach and the posterior approach, and select one that you feel most comfortable with.\*\*\**

<https://www.youtube.com/watch?v=nh1DedZQJ3M>

<https://www.youtube.com/watch?v=DaDYqs4H92U>

**Respiratory**

*Special Tests*

* Chest Excursion
  + *Positive Sign*: asymmetric movement of hands
  + *Indication*: problem with one or both lungs (usually decreased in a barrel chest)

<https://www.youtube.com/watch?v=8IjMjFSRmII>

* Crepitus
  + *Positive Sign*: a crackly sensation or sound
  + *Indication*: presence of air in the subcutaneous tissue
* Pleural Friction Rub
  + *Positive Sign*: grating vibration felt upon palpation
  + *Indication*: inflammation of the pleural space
* Tactile Fremitus
  + *Positive Sign*: increased or decreased sound transmission
  + *Indication*: increased sound transmission from fluid or a solid mass (i.e. tumor) or decreased sound transmission from excessive air (i.e. emphysema or bronchial obstruction)

<https://www.youtube.com/watch?v=NoJeTljJ-PQ>

* Bronchophony
  + *Positive Sign* : increased sound when the patient is asked repeat a phrase (“99, 99”)
  + *Indication*: consolidation

<https://www.youtube.com/watch?v=NlfUy3yyAEs>

* Whispered Pectoriloquy
  + *Positive Sign*: increased sound that is louder and clearer when the patient is asked to whisper “1-2-3”
  + *Indication*: consolidation

<https://www.youtube.com/watch?v=V761MusII1I>

* Egophony
  + *Positive Sign*: when patient is asked to say “E-E-E-E” it is heard as “A-A-A-A” (it is imperative that you ask the patient to repeat this as an individual sound and not as a continual one)
  + *Indication*: consolidation

<https://www.youtube.com/watch?v=VthSqLviduk>

**Neurological**

*\*\*\*Note: Some common chief complaints in which a full neurological exam should be performed include headache (eye exam should be considered), fatigue, weakness, sudden visual change (eye exam should be considered), eye pain (eye exam should be considered), any cognitive complaints, behavioral issues, psychiatric complaints, etc.* ***There should be a very low threshold present in order to perform a full neurological exam****.\*\*\**

*Basic Exam Techniques*

* Mental Status Assessment
* CN II-XII Testing

<https://www.youtube.com/watch?v=HH7a-B7c0cM>

<https://www.youtube.com/watch?v=wl1hWJAnaYc>

<https://www.youtube.com/watch?v=_gpKwikoZv4>

<https://www.youtube.com/watch?v=kOwJNTAZy5o>

<https://www.youtube.com/watch?v=eD46Mrk_9So>

<https://www.youtube.com/watch?v=SUEZtGbxxXg>

<https://www.youtube.com/watch?v=IdRuasfki6U>

<https://www.youtube.com/watch?v=aRMBGPjtNLo>

<https://www.youtube.com/watch?v=u4Pd2IMFDfg>

* Muscle Strength Testing
* Cerebellar Exams
  + Finger-Nose-Finger

<https://www.youtube.com/watch?v=2Buhkr5akMs>

* + Heel-to-Shin

<https://www.youtube.com/watch?v=uEaTMysjSDA>

* + Rapid Alternating Movements

<https://www.youtube.com/watch?v=AA4E0nRik6M>

* + Gait
    - Regular Walk
    - Walk on Toes
    - Walk on Heels
    - Tandem Gait
  + Romberg (this is placed here for organizational ease and it is important to remember that a positive Romberg implies a proprioceptive or vestibular defect [an individual with a present cerebellar defect would have difficulty even prior to trying to begin a Romberg test])

<https://www.youtube.com/watch?v=suxuiAcBEp4>

* Sensory Exams
  + Pain and Temperature (lateral spinothalamic tracts)

<https://www.youtube.com/watch?v=AR6Mg1qDCAs>

* + Light Touch and Crude Touch (anterior spinothalamic tracts)

<https://www.youtube.com/watch?v=g6AYM6Hyaxg>

* + Proprioception, Vibration, and Two Point Discrimination (posterior columns)

<https://www.youtube.com/watch?v=0krCEry9_w8>

* + Point Localization
  + Texture Discrimination
  + Stereognosis
  + Graphesthesia
* Deep Tendon Reflexes

<https://www.youtube.com/watch?v=f2viqFATRsY>

* + Brachioradialis (C5-C6)
  + Biceps (C5-C6)
  + Triceps (C6-C7-C8)
  + Patellar (L2-L3-L4)
  + Achilles (S1-S2)
* Plantar/Toe Signs
  + Plantar Toe Reflex/Babinski

<https://www.youtube.com/watch?v=VwpLUUq2L8U>

* + Chaddock

<https://www.youtube.com/watch?v=wdoVBmG9Iz4>

* + Achilles Toe Reflex/Schaeffer

<https://www.youtube.com/watch?v=3nA4dchW0m4>

* + Shin-Toe Reflex/Oppenheim

<https://www.youtube.com/watch?v=5CpQq2hfzkU>

* + Calf-Toe Reflex/Gordon

<https://www.youtube.com/watch?v=IehrTYg0Mnw>

* + Pinprick-Toe Reflex/Bing
  + Toe Pull Reflex/Gonda or Stransky

<https://www.youtube.com/watch?v=vktHpdMy54M>

*Special Tests*

* Brudzinski Sign
  + *Positive Sign*: nuchal pain with flexion of the hips and lower extremities
  + *Indication*: meningeal irritation (i.e. meningitis or intracranial hemorrhage)

<https://www.youtube.com/watch?v=Pxo02mAgIvg>

* Kernig Sign
  + *Positive Sign*: low back pain
  + *Indication*: meningeal irritation (i.e. meningitis or intracranial hemorrhage)

<https://www.youtube.com/watch?v=EV1HOuxJUjQ>

**Eye**

*Basic Exam Techniques*

* Far Visual Acuity
  + Snellen Chart
* Near Visual Acuity
  + Rosenbaum Chart

<https://www.youtube.com/watch?v=wl1hWJAnaYc>

* Confrontation Test (peripheral vision test)

<https://www.youtube.com/watch?v=kqPVVsVN4b8>

* Amsler Grid (central vision test)
* Color Plates (color vision assessment)
* Corneal Clarity
* Corneal Reflex (does not occur if the patient is wearing contacts)
* Pupillary Light Reflex

<https://www.youtube.com/watch?v=E0BAqYKiYlw>

* Accommodation

<https://www.youtube.com/watch?v=cV8ZDaRi3VA>

* Swinging Flashlight Test

<https://www.youtube.com/watch?v=tkzXpmZityU>

* Extraocular Muscle Movements (assessment of the cardinal fields of gaze)

<https://www.youtube.com/watch?v=WWig0j8oNFY>

* Corneal Light Reflex

<https://www.youtube.com/watch?v=pBJcvahjn1E>

* Cover-Uncover Test

<https://www.youtube.com/watch?v=BAnPhkd_E2Y>

* Ophthalmoscopic Exam

<https://www.youtube.com/watch?v=95kz2PbF6zE>

**Abdomen**

*\*\*\*Note: Always remember to perform auscultation prior to percussion and/or palpation (this is an easy thing to forget and this is simply a reminder).\*\*\**

*Special Tests*

* Murphy’s Sign
  + *Positive Sign*: pain and sudden halting of respiration
  + *Indication*: gallbladder inflammation

<https://www.youtube.com/watch?v=Uk0zQUZphlI>

* Shifting Dullness
  + *Positive Sign*: border of dullness shifts to the dependent side as the fluid resettles
  + *Indication*: ascites
* Fluid Wave
  + *Positive Sign*: impulse through fluid is felt on the patient’s abdomen
  + *Indication*: ascites
* Rebound Tenderness (Blumberg’s Sign)
  + *Positive Sign*: stabbing pain occurs with rapid withdrawal of hands
  + *Indication*: peritoneal inflammation

<https://www.youtube.com/watch?v=YYIoxjiBAV0>

* Iliopsoas Muscle Test
  + *Positive Sign*: pain upon flexion of the right thigh against resistance
  + *Indication*: appendicitis

<https://www.youtube.com/watch?v=-azrl9gRUMU>

* Obturator Muscle Test
  + *Positive Sign*: pain upon flexion at the hip and knee with internal and external rotation of the right leg
  + *Indication*: appendicitis or pelvic abscess

<https://www.youtube.com/watch?v=k6Pznq4VYoE>

* Aaron’s Sign
  + *Positive Sign*: pain or distress occurs in the area of the patient’s heart or stomach on palpation of McBurney’s point
  + *Indication*: appendicitis
* Ballance’s Sign
  + *Positive Sign*: fixed dullness to percussion in the left flank and dullness in right flank that disappears on position change
  + *Indication*: peritoneal irritation
* Cullen’s Sign
  + *Positive Sign*: ecchymosis around the umbilicus
  + *Indication*: hemoperitoneum, pancreatitis, or ectopic pregnancy
* Dance’s Sign
  + *Positive Sign*: absence of bowel sounds in RLQ
  + *Indication*: intussusception
* Grey Turner’s Sign
  + *Positive Sign*: ecchymosis of flanks
  + *Indication*: hemoperitoneum or pancreatitis
* Kehr’s Sign
  + *Positive Sign*: abdominal pain radiating to left shoulder
  + *Indication*: splenic rupture, renal calculi, or ectopic pregnancy
* Markle’s Sign (Heel Jar Sign)
  + *Positive Sign*: pain when patient’s heels are struck
  + *Indication*: peritoneal irritation or appendicitis
* McBurney’s Point
  + *Positive Sign*: rebound tenderness and sharp pain when McBurney’s point is palpated
  + *Indication*: appendicitis
* Rovsing’s Sign
  + *Positive Sign*: RLQ pain intensified by LLQ palpation
  + *Indication*: peritoneal irritation or appendicitis
* Howship-Romberg Sign
  + *Positive Sign*: pain down medial aspect of the thigh to the knee
  + *Indication*: strangulated obturator hernia

*References*

Ball, J.W., Dains, J.E., Flynn, J.A., Solomon, B.S., and Stewart, R.W. *Seidel’s Guide to Physical Examination*. 8th Edition. St. Louis, Missouri: Elsevier, 2015.

Clinical Skills 1 Lab Handouts